

Introductory Statement: Proceedings of Conference on Public Health Implications of Components of Plastic Manufacture

It was apparent that the concern associated with the long-term toxicity of vinyl chloride, while justified, was much too narrow in focus and that a conference to consider more broadly the public health implications associated with manufacturing, processing, and using polymeric materials would be useful. These proceedings reflect such a conference which was sponsored by the National Institute of Environmental Health Sciences and held in Pinehurst, North Carolina, July 29-31, 1974. The conference was organized by R. L. Dixon (National Institute of Environmental Health Sciences, Research Triangle Park, N.C.), S. Murphy (Harvard University School of Public Health, Boston, Mass.), E. M. Pearce* (Polytechnic Institute of New York, Brooklyn, N.Y.), and J. C. Salamone (Lowell Technological Institute, Lowell, Mass.). The major objectives of the meeting were to review briefly the toxicity of vinyl chloride and other compounds of plastic processing with known toxicity and then to consider the total sphere of potential health hazards associated with the manufacture and use of plastics. Scientists with different professional backgrounds, experiences, and perspectives were invited to participate. Chemists, pharmacologists, toxicologists, epidemiologists, and physicians from private industry, federal agencies, and universities gathered and exchanged data, ideas, and viewpoints. The ultimate goal of the conference was to identify potential health problems, define research approaches, and indicate priorities to most efficiently estimate the actual risks and benefits

involved and attempt to estimate the appropriate balance of the two.

Speculation and hypotheses were encouraged as the first steps in progressing from a position of general ignorance toward acquisition of facts. Ultimately, this accumulated knowledge can be applied to the evaluation of potential adverse health effects and to the recognition (hopefully before the fact) of where hazards to human health exist and how they can be minimized. To achieve these final objectives, it is necessary to move from the speculation phase to actual research and data gathering efforts. This meeting was not expected to, nor did it, provide answers to all the questions that were posed during these three days. However, communication between biological and physical scientists working in applied and basic areas was achieved. This will challenge every one involved to consider new approaches and different viewpoints concerning the common goal of understanding the potential hazards of our environment and protecting human health.

Scientific presentations considered the manufacturing, processing, and additives used in the production of polymeric products. Results obtained from studies with laboratory animals and man as well as epidemiological data were summarized. Emphasis was also placed on the chemical and biochemical mechanisms of chemical-induced disease. The environmental aspects of polymeric materials that were considered included pyrolysis and combustion hazards, planning for disposal, and exposure potentials in indoor environments.

The papers presented at this meeting appear

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here substantially as presented. The papers by Reynolds et al., Drew, et al., and Miller as well as the bibliography prepared by Warren

and Huff were not part of the conference but are included for completeness of the subject. Your comments on this volume are encouraged.